COMMENT ON THE PROPOSED DESIGNATION OF A TYPE SPECIES FOR *GNATHODUS* PANDER, 1856 (CONODONTA). Z.N.(S.) 2279

(see vol. 36, pp. 57–62; pp. 201–202)

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Forms identified as *Gnathodus* have been recovered from samples of earliest to latest Mississippian in age (Kinderhookian through middle Chesterian Series in North America). Within the lower Mississippian (Kinderhookian-Osagean Series) *Gnathodus* is the major element of conodont biostratigraphic zonation, being one of the name givers in six out of nine zones proposed by Thompson & Fellows, 1970, *Missouri Geol. Surv. Rep. Inv.*, no. 45, for south-western Missouri strata. It is also a major element in lower and upper Meramecian and Chesterian biostratigraphic zonations.

The loss of, or renaming of, forms now identified as *Gnathodus* would seriously hinder present and future understanding and usefulness of conodont biostratigraphic zonation in the Mississippian System of North America and the Lower Carboniferous of Europe. The proposal by Lane & Ziegler to designate *Gnathodus texanus* Roundy as the type species is a good one in that *G. texanus* is a well-understood form, and its relationship to the development of the genus has been documented (Thompson, 1979, *Lethaia* vol. 12). For stability of nomenclature of this important Mississippian biostratigraphic tool and for accurate designation of the morphological concepts to which the generic name *Gnathodus* has been given in the literature for over 40 years, I recommend acceptance of their proposal.

[Editor's note: Dr. Walter Schäfer (*Geologisches Landesamt Nordrhein-Westfalen, Krefeld, B.R.D.*) also supports the application.]

COMMENT ON INTERMEDIATE CATEGORIES IN THE SPECIES GROUP Z.N.(S.) 2250

(see vol. 36, pp. 71-72)

By Hans Silfverberg (*Zoological Museum, University of Helsinki, SF-00100 Helsinki, Finland*)

A proposal was recently introduced by Bernardi and Melville (*Bull. zool. Nom.* vol. 36, pp. 71–72) to add some intermediate categories to the species group, one above the species and representing a group of closely related allopatric species, the other between species and subspecies, forming subspecies groups. The latter category has been used sometimes, e.g. by Breuning in his large *Carabus* revision (*Best.–Tab. eur.* Coleopt., Hefte 104-110, 1932-36), although his terminology was somewhat different. Breuning called the local taxon "natio", and grouped several nationes into subspecies, but within the provisions of the Code is natio is a subspecific taxon. Breuning's presentation

of the geographical forms was the same, which Bernardi and Melville propose, so their proposal would, at least in its latter part, give official consent to an existing, although infrequent, usage.

As for the supra-specific epithet, I suppose it will have its use, too. I would only recommend a quite firm wording lest it be used undiscriminatingly for species groups in general, all the more since species groups sometimes even have been used instead of subgenera. On the other hand, provisions should be made for allopatry existing only in microhabitats, as seen e.g. in the fish genus *Coregonus*.

I do have some apprehensions of a practical kind in connection with this proposal. I am sure that we do not wish to see faunistic lists etc. cluttered with strings of names like *Carabus* (*Mesocarabus*) *problematicus* (*gallicus*) *strandi* Born, or even *Carabus* (*Procrustes*) (*violaceus*) *violaceus* (*violaceus*) *violaceus* L. Maybe a recommendation should be inserted, saying an author should use the intermediate categories only when he considers that they give necessary information for the publication in question.

Maybe some thought also should be given to certain other intermediate categories, sometimes in use. At least in the large genera *Carabus* and *Otiorhynchus* an infrasubgeneric category has been used, with names of the generic type. The names themselves are naturally covered by the provisions of the Code, but should their presentation in text be formalized?

In the family group we meet several categories, four of which are named in the Code. Yet only the family and subfamily endings are mandatory, for superfamilies and tribes we only have a recommendation that the endings should be -oidea and -ini. Should the latter ones also be made mandatory? In addition, the category subtribe, normally ending in -ina, is rather frequently in use in large families. Perhaps it should be mentioned in the Code, with the ending given in a recommendation.